

# United States Senate

April 13, 2010

The Honorable Thomas J. Vilsack, Secretary  
U.S. Department of Agriculture  
1400 Independence Avenue, S.W.  
Washington, DC 20250-0002

Dear Mr. Secretary:

I was pleased to see that the Fiscal Year 2011 (FY11) budget request from the U.S. Department of Agriculture includes \$10 million for the establishment of five Regional Biofuels Feedstocks Research and Demonstration Centers. It is crucial for the U.S. Department of Agriculture to continue increasing funding for research of this nature in order to meet many of the major challenges our nation will face regarding energy, water, and food production.

The justification for these Regional Centers notes that there will be three key features to the program, identified as follows: "(i) strong management for results using a regional supply chain systems approach, (ii) continued support for development of first- and second-generation biofuels with a major focus on accelerating third generation (drop in) biofuels development, and (iii) support of feedstock research and demonstration including perennial grasses to ensure sustainable supply chain development that minimizes transaction costs and creates wealth for farms and rural communities."

I understand that the Grain, Forage and Biomass Energy Research Unit in Lincoln, Nebraska, is to become one of these centers, and wholeheartedly agree this unit is ideally positioned to assume this responsibility. It includes one of the world's foremost research scientists in the development of switchgrass as a biofuel crop – Dr. Ken Vogel. Dr. Vogel has dedicated his 40-year career to the study of switchgrass and was breeding improved varieties long before it became the focus of biofuels research. His energy-analysis research on switchgrass for cellulosic ethanol production was published in the January 2008 edition of the *Proceedings of the National Academies of Science*. Presently, this unit is conducting leading biofuels research focused on the:

- Development of a full production system for switchgrass as a biomass energy crop, including:
  - Development of new varieties superior for ethanol production;
  - Production and management research: establishing a cost-effective system enabling producers to grow enough biomass for ethanol production;
  - Economic studies of biomass production;
  - Energy and life cycle analysis of switchgrass for cellulosic ethanol production; and
  - Environmental benefits studies of switchgrass as a bioenergy crop.
- Development of sorghum, wheat and forages as bioenergy crops;
- Sustainable use of corn stover as an ethanol feedstock;
- Effects on soil and water of using crop residues for energy production; and
- Effects of increased biomass production and removal on water resources.

In addition, this Agricultural Research Service (ARS) unit has a 50-year history of strong and productive collaborations with scientists at the University of Nebraska-Lincoln (UNL). The University brings many strengths in biofuels research which will be an asset to the Biofuels Feedstock Center, including

internationally recognized work in the life-cycle analysis of biofuels; a unique, 480-acre field-scale facility for the study of carbon sequestration in croplands and internationally recognized expertise in this area; research on closed-loop ethanol production systems utilizing distillers grains and other by-products to reduce greenhouse gas emissions by more than 80 percent; strong research programs on novel oilseed crops and algae for biofuel production; and expertise in plant molecular biology and plant biotechnology, including the only university facility in the nation for field-scale trials of genetically modified and regulated crops.

I look forward to working with you on this and other matters regarding the FY11 budget and the agricultural interests of our nation.

Sincerely,



E. Benjamin Nelson  
United States Senator

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cc: The Honorable Herb Kohl